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#### Abstract

The effect of system decision support in the effectiveness of decision making in General Organization for Social Insurance in Saudi Arabia.

Mohammad bin Suleiman bin Muslim Al-Balwi.

### Mu'tah University, 2009

The study aims to introduce The effect of system decision support in the effectiveness of decision making in General Organization for Social Insurance in Saudi Arabia. The study consist of all directors: (directors, assistant directors, heads of sections) in General Organization for Social Insurance and its other branches distributed allover the kingdom, 350 directors. To achieve the goals of the study, a questionnaire was designed consist of 44 paragraphs distributed to the field of the study. The study returned 280 of them, 8 were excluded because they were not valid to the statistical analysis, and so the total number of the questionnaire to be valid for analysis was 272 i.e.89% of the study field.

The study revealed upon the following conclusions:

The degree of the effect of system decision support (management models, the dimension of technology, storing and collecting data), in the

the effectiveness of decision making was high, the dimension of storing and collecting data was in the first followed by the management model and finally the technological dimension. Demographic factors just effect by the career level and qualifications in both variables.

The study recommended:

The necessity of activating the role of management models for the users.

Training directors in the use of new mathematical and statistical models to increase the effectiveness of decision making by the support of mathematical models.

Increasing the technological ability for the users.

Renewing the technological supplies which reduce the knowledge gaps in General Organization for Social Insurance.

## 1.1 المقدمة:

). .(2006

. (2003 )

2.1 مشكلة الدراسة:

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## 1. 3 أهمية الدراسة:

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1. 4 أهداف الدراسة:

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1. 5 أسئلة الدراسة:

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6.1 فرضيات الدراسة:

 $(\alpha \leq 0.05)$ 

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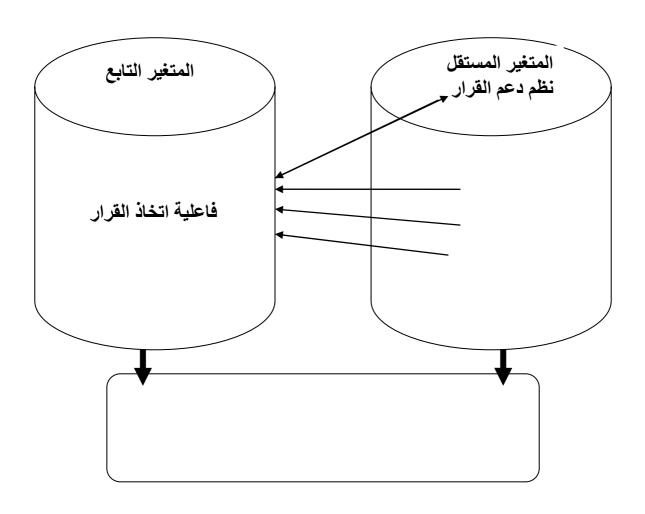
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                                                           1-7 أنموذج الدراسة:
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# الفصل الثاني

## الإطار النظري والدراسات السابقة

2. 1 الإطار النظري:1.1.2 مفهوم نظم دعم القرار:

.(1994)

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(2003
                     (Bravata, et.al, 2002)
    (Marek and Roger, 2002)
                       (
                     2.1.2 أهمية نظام دعم القرار:
              (1999
(Angell, 1991)"
            (2005
                          )
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.5

.(William, 1996)

3.1.2 خصائص وإمكانيات نظم دعم القرار:

( ) . (40: 1997 )

. (59-58:2001)

.(246:2002)

4.1.2 تصنيف نظم دعم القرار ودعمها:

1. نظم دعم القرارات الموجهة بالبيانات:

.(2005)

(Alter, 1980)

(2000 )

2. نظم دعم القرارات الموجة بالنماذج:

.(2005)

أ- نظم دعم القرارات الجماعية:

. (2004 )

ب\_ نظم دعم القرارات الفردية:

نظم دعم قرارات المؤسسات:

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نظم دعم قرارات معينة.

## 5.1.2 المستلزمات المادية لنظم دعم القرار:

(Alexander, 2000: 17)"

(Wilson, 2000).

(Hierarchical Network) (Star Network)

(Distributor Network)

6.1.2 مراحل نظم دعم القرار

1) جمع وتجهيز البيانات الأساسية:

)

.(1987

2) البعد المعلوماتى:

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.(Arora,& Kumar, 2000)

3) البعد المعرفى:

(Jerva, 2001).

(Decision Support System) أنماط استخدام نظم دعم القرار 7.1.2

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(Alter, 1980)

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Ryker & ) (Nath, 1998 8.1.2 إشكاليات دعم القرار: :(1993 (Meta-Data)

:(multi dimensions) :(Gentry, 2005) .1 .2 .3 .4 .5 .6 9.1.2 مكونات نظم دعم اتخاذ القرار:

# (2001). :(2003 :(Predefined Reports) :(Ad-hoc Reports) 2) البُعد التكنولوجي Technological Dimension (Hardware)

1) أدوات العرض والتحليل (إدارة النماذج) Analysis and Reporting Tools

.(Software)

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.(2003		)					
(Collection	and	Connection)					
(Content				(Data	base Wa	rehouse)	
						.Qual	ity)
			:	(1995		)	
				:(Accessit	oility)		_أ
(Data							
		(I	Data Ma	rket)		Warehouse)	
		:(Own	nership a	and Privileg	e)		-

	:(Interoperability	)
Data Warehouse or	فزین البیانات Data Aggregator	3) تجميع وت
(2000	· ).	
(Data Collec	tion & Recording):	_
	(Data Coding) :	-

(Data Editing) : 10.1.2 فعالية اتخاذ القرار: .(2003). (Roberts and Hunt, 1991:334) (Boone & Kurtz, 1992: 176) (2005

(Data Classifying):

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.(210 1995 )."
(1961,540
                                    * (8)
                      =(2)
            (16)
                     =(5)
                                 *(8)
            (40)
                             (2008
                                   (Quality)
                                     (Acceptance)
        .(
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11.1.2 العوامل المؤثرة في فاعلية اتخاذ القرارات:

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. (Robbins, 2001)

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الخطوة الأولى:	:		:			
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- الخطوة الثانية:			:			
الخطوة الثالثة:			:			

12.1.2 خطوات اتخاذ القرار:

: (2000 )

\_1 الخطوة الرابعة: (2001 \_1 (2000 ). 13.1.2 /9/6 22 / 1969/11 /15 1393 1389 33/ 1402/7/1 2000/11/29

2001/4/1

1421/9/3:

1422/1/1

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2. 2 الدراسات السابقة:

1.2.2 الدراسات العربية: 7 )

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## 2.2.2 الدراسات الأجنبية:

Decision support system for " (Chong et.al, 2009)
service quality management using customer knowledge in public "service organization

(358)

(%50)

(%52)

Public Sector " (Victoria et.al, 2008)

"Priority Setting Using Decision Support Tools

(204)

"Key Data (Kumar Plavia, 2006)

Management Issues in a Global Executive Information System"

Technology Supported	(Gentry, 2005)
."Data-Driven Decision	-Making In An Oklahoma Elementary Schoo
"A Group Decision	(Carnerio, 2005)
Suppor	rt System for Strategic Alternatives Selection'

"A Group
----------

(Ashill & Jobber, 2004)

**Decision Support System for Strategic Alternatives Selection"** 

(20)

(Chiplunkar, 2003)

"Application of Principles of Event Related Open Systems to Decision Support Systems"

" DSS and Systems Analysis and (Jerva, 2001)

Design Making the Case for Integration"

(Remenyi & Sherwood, 1999)

"Supporting Temporal Views in a Management Information

Base from Executive Managers Point of View: Case of Sweden"

3.2.2

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(30) (80) . -1

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(1) ) (

%3.7	10	
%8.8	24	
%66.5	181	
%21.0	57	
%100.0	272	
%0.7	2	31
%3.7	10	35 -31
%39.7	108	45-36
%46.3	126	55-46
%9.6	26	56
%100.0	272	
	-	- 5
%7.7	21	10-6
%20.2	55	15-11
%35.3	96	20 -16
%36.8	100	21
%100.0	272	
%99	269	
%1	3	
%100	272	
%22.8	62	
%21.3	58	
%55.9	152	
%100.0	272	

: 4.3

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(Likert	)	)	.( (44)	: ) :	
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10-1					
18-11 24-19					
44-25					

; **5.3** (7)

6.3 (Cronbach Alpha) (3) (3) 0.86 0.84 0.91 0.90 0.89 (3) (0.90) ( . (0.91 – 0.84) ) (0.89)7.3 (Spss)

44

(Descriptive statistic Measures)	-1
(Multiple Regression Analysis)	.2
(Mulple Anova)	.3
Stepwise Multiple Regression ) . (Analysis	.4
(Variance Inflation Factory)(VIF)	.5
(Tolerance)	
. (Multicollinearity)	
(Skewness)	.6
.(Normal Distributions)	

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. (4)

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10-1	3	3.30	0.47	
18-11	2	3.98	0.39	
24-19	1	4.12	0.47	
24-1	-	3.73	0.39	

(4)

) (0.39) (3.73) (4.12)

(3.98) .(3.30) ( (5) ( 1 1 0.57 4.39 9 2 0.61 3.86 2 3 3.79 0.60 6 4 0.64 3.68 5 5 0.71 3.65 3 6 0.71 3.24 10 7 0.76 3.11 8 0.73 2.65 9 0.74 2.51 10 0.69 2.29

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3.30

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( .( 3.30) "(1) (4.39) "(7) (2.29) (6) 1 0.52 14 4.56 2 12 0.56 4.50 3 15 0.57 4.46 4 0.58 4.44 11 5 0.60 17 4.15 6 0.54 3.96 18 7 0.58 3.62 13 8 0.75 16 2.25 0.39 3.98 (6) (

48

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"(14)
                                                          .(3.98)
                                               (4.56)
                                 "(16)
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                           (7)
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0.50
       4.63
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0.55
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                  "(24)
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. (3.75)

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1 0.513 4.60 39 2 0.568 4.54 37 3 0.550 25 4.49 4 0.698 4.49 42 5 0.563 4.47 27 6 0.556 4.46 26 7 0.661 4.29 44 8 0.589 4.18 40 9 0.675 4.01 28 10 0.534 3.72 38 11 0.577 3.65 32 12 0.621 3.64 29 13 3.61 0.616 43 14 0.588 3.53 30 15 0.522 3.48 33 16 0.562 34 3.46 **17** 0.661 3.42 41 18 0.577 3.33 31 19 0.607 3.13 36 **20** 0.507 3.07 35 3.87 0.39

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(0,39)
                               (3,87)
                                               (39)
                            (4.60)
                                              (35)
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Variance )(VIF)
                                               (Multicollinearity)
                                               (Inflation Factory
                (Tolerance)
                                                  )
       (Normal Distribution)
                            (9)
                                         . (Skewness)
                         .(9)
```

	Skewness		Tolerance		VIF
(	0.199	.523		1.911	
(	0.288	.407		2.458	
(	0.097-	.465		2.152	

(9)

(VIF)

```
(Tolerance)
                                                                   (10)
                                                                                (0.05)
              (0.288 - 0.097)
                                                                     (\alpha \leq 0.05)
                                                                                  (10)
                                    (10)
             .(Analysis Of variance)
      F
                                                     R^2
                                                         0.62
      146.721
                            3
                                       25.736
                 8.579
*0.00
                 .058
                            268
                                       15.670
                            271
                                       41.406
                                             (\alpha = 0.01)
                          (10)
                            (F)
                                         (\alpha \leq 0.00)
                                                                           (146.721)
                                                                           (\alpha \leq 0.01)
                     )
                             (%62)
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:

$$(\alpha \leq 0.05)$$

( )

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(11)

	T		Beta	В	
.000*	4.194	.218	.043	.181	إدارة النماذج
.195	1.298	.076	.058	.076	البعد التكنولوجي
.000*	10.454	.576	.045	.470	تجميع وتحزين البيانات

(α=0.01) \*

(T) (11)

( T = 4.19) : (10)  
.(
$$\alpha \le 0.05$$
) ( $\alpha \le 0.00$ )

 $(\alpha \le 0.05) \qquad \qquad :$ 

(T) (11)

(T =1.298): (11)  
.(
$$\alpha \le 0.05$$
) ( $\alpha \le 0.195$ )

 $(\alpha \leq 0.05) \qquad \qquad :$ 

(T) (11)

: (10)  $(\alpha \le 0.00) \qquad (T=10.454)$   $.(\alpha \le 0.05)$ 

Stepwise Multiple

Regression
)

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			$R^2$	T		
		0.58		13.010		.000*
		0.62		5.223		.000*
*	(α≤0.01)					
			(12)		)	
(			58)	(%		
)				)		(
		(%62)				
	:					
(α≤0.05)						
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	(13)					

		_
0.54085	3.3917	
0.45972	3.5243	
0.37366	3.7864	
0.34591	3.7434	
0.53033	3.6250	31
0.40825	3.6250	35 -31
0.38088	3.7724	45-36
0.38891	3.7378	55-46
0.46577	3.6667	56
		5
0.38032	3.6131	10-6
0.39827	3.7947	15-11
0.39300	3.7166	20 -16
0.39346	3.7583	21
0.39310	3.7447	
0.02946	3.2292	
0.31103	3.7863	
0.25944	3.9332	
0.43592	3.6469	

(13) ) . (

. (14) (Multiple Anova)

(14)

			)	
F				
3.145	.437	3	1.311	
1.770	.246	3	.737	
7.805	1.084	2	2.168	
.122	.017	4	.068	
1.653	.230	1	.230	
	.139	257	35.697	
		271	3834.464	
			(α≤0.05)	
	(14)			
		( α≤0.	05)	
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				.(
	F= 3.145			)
(0.05				(α≤0.026
		(F= 7	7.805)	·
•	.( $\alpha \leq 0$		·	
	3.145 1.770 7.805 .122	3.145 .437 1.770 .246 7.805 1.084 .122 .017 1.653 .230 .139  (14)  )  F= 3.145	$3.145$ $.437$ $3$ $1.770$ $.246$ $3$ $7.805$ $1.084$ $2$ $.122$ $.017$ $4$ $1.653$ $.230$ $1$ $.139$ $257$ $271$ $ (14) $ $(\alpha \le 0.$	3.145 .437 3 1.311 1.770 .246 3 .737 7.805 1.084 2 2.168 .122 .017 4 .068 1.653 .230 1 .230 .139 257 35.697 271 3834.464 ( $\alpha \le 0.05$ ) (14) ( $\alpha \le 0.05$ ) ) $F=3.145$ ( $0.05$ )

(16) (15)

(15)

0.397*	-	- 3.3917	
0.26*	-	- 3.5243	
	-	3.7864	
	-	3.7434	
	(15)		

(16)

-	-	-	3.7863	
0.284*	-	-	3.9332	
-	_	-	3.6469	
		(16)		

(10)

:

 $(\alpha \le 0.05)$ 

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0.65056	3.5100	
0.40154	3.6833	
0.36531	3.9058	
0.36441	3.9044	
0.10607	3.7750	31
0.38355	3.8900	35 -31
0.41356	3.8625	45-36
0.37890	3.8964	55-46
0.37565	3.7865	56
		5
0.40556	3.8452	10-6
0.34308	3.9127	15-11
0.39661	3.8141	20 -16
0.40517	3.9090	21
0.39193	3.8727	
0.10607	3.9250	
0.34010	3.8895	
0.34553	4.0293	
0.40998	3.8036	

```
(17)
                                                        )
                            (18)
                                                  (Multiple Anova)
                                   (18)
                                                   )
                               (
                  ( )
*0.015
                  3.529
                                           3
                                                          1.481
                             .494
 .058
                  2.845
                             .398
                                           3
                                                          1.193
*0.004
                  5.758
                             .805
                                           2
                                                          1.610
0.856
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                             .047
                                                          .186
0.559
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                                           1
                                                          .048
                             .048
                                                          35.938
                             .140
                                           257
                                           271
                                                          4106.350
                                                          (\alpha \le 0.05)
                                     (18)
                                               ( α≤0.05)
                                                                             .(
                      (F=3.529)
     (\alpha ≤0.05)
                                                                       (\alpha \le 0.015)
(α≤0.004)
                                       (F=5.758)
```

.(  $\alpha \leq 0.05$ 

. (20) (19)

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0.39*	0.399*	-	3.5100
		-	3.6833
		-	- 3.9058
		-	3.9044
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-	-	<sup>-</sup> 3.8895
0.223*	-	4.0293
-	-	3.8036
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